LKS

Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Dave Freudenthal, Governor

John Corra, Director

March 8, 2010

Mr. Angelo Kallas
Cameco Resources, Inc.
PO Box 1210
Glenrock, WY 82637

Subject: February 2010 Inspection Report, Cameco Resources, Permits 603 and 633

Dear Mr. Kallas:

Please find enclosed the above referenced report. The February inspection was conducted by me with assistance from your staff on February 24, 2010. The emphasis of the visit was on wellfield inspections within the Smith Ranch Mine. The Land Quality Division intends to increase field inspection time over the next year in effort to meet the requirements for inspection of well completions as well as verify ongoing wellfield activities.

If you have any questions regarding this report please contact me at (307) 777-7048 or prothw@wyo.gov.

Sincerely,

Pam Rothwell

Pam Rothwell
District 1 Assistant Supervisor
Land Quality Division

cc: Joe Brister, Cameco Resources, Lakewood, CO
Douglas Mandeville, NRC

ec: Steve Ingle, LQD

JPS

FEBRUARY 2010 INSPECTION REPORT
DISTRICT 1/LAND QUALITY DIVISION

COMPANY:	Cameco Resources (CR), Highland Ranch, Permit #603 & Smith Ranch, Permit 633
LOCATION:	North of Glenrock, off Ross Road
DATE OF INPECTION:	February 24, 2010
DATE OF REPORT:	March 2, 2010
INSPECTORS:	Pam Rothwell, LQD Permit Coordinator
CONDITIONS:	Very Cold in A.M. (5°), warming to upper 20s in P.M. Partly cloudy, light wind, snow pack field conditions
COMPANY REPRENTATIVES:	Dawn Kolkman, SHEQ Coordinator John McCarthy, Radiation Safety Officer

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INTRODUCTION

The focus of the unannounced inspection was to inspect the status of MU-9, MU-4 and MU-3 and to observe well completion activities in MU-15A. An inspection by the Nuclear Regulatory Commission (NRC) was ongoing and in the second day of a three day unannounced inspection.

DISCUSSION

Update of Wellfield Activities – provided by Mike Bryson, Production Manager

- Producing in wellfields H, I, J, K, 15, 15A, 9, 2 and 3
  - *MU 9* – HH9-2 through 9-9 are in production, HH9-1 not installed, HH 9-10 is ready to turn on
  - *MU 2* – working on responses to LQD review (TFN 5 2/141) to complete in a second mining zone
  - *MU 3* – CR working on proposal for re-completion package (approx. 130 wells)
- Restoration activities in wellfields
  - *MU C* – currently in groundwater sweep @ C-22 and C-24 to pull flow from the CM 32 excursion, plans to begin injection of sodium sulfide reductant in near future to reduce the bicarbonate concentration. A report is in progress to describe the conclusions of the bioremediation efforts and plans to continue the effort to expedite groundwater restoration. The report is due March 5, 2010.
  - *MU D* - reverse osmosis began January 27 – plan to continue RO
  - *MU 1* – reverse osmosis @ approx. 400 gal/min
  - *MU F*- maintaining bleed

- Development activities in wellfields
  MU-9 - development drilling in HH 9-13
  MU15A – completing new wells in wellfield
  MU 27- 3rd round of baseline collection
- Delineation drilling activities
  MU-7 and MU-3
  MU-9 could be delineation or exploration drilling

J-Wellfield Spill (occurred January 29, 2010)

The total spill volume of 220 gallons was under the minimum reportable requirement which is 420 gallons, however, CR reported it because the fluid ran into a drainage. A pop-off valve failed to re-seat when a piece of circulating poly pipe plugged the valve. The daily wellfield inspector found the spill and reported it immediately. Approximately 1800 ft² was affected. A water sample was not taken due to the minimum available fluid and rapid absorption into the soil. The water quality of the spill will be based on the laboratory results of the injection fluid at the time of the spill. A follow-up spill report was received by LQD on February 3, 2010 and is currently in review for concurrence of any mitigation requirements.

Well Completion Requirements (WR&R Chapter 11, Section 11(b))

Cameco and LQD continue to discuss the most practical method to address the completion notification requirement. It will likely, include a spreadsheet notification of a group of wells either by header house grouping or monthly completed wells. It was agreed to meet on February 25th to further discuss and define the information needed on the spreadsheet. LQD will continue to conduct spot checks during monthly inspections of any ongoing completions activities

Radium Pond Reclamation

Pam requested an update on the status of the plans for the reclamation of the radium pond. CR has put the reclamation into the 2010 budget. They plan to hire a radiation technician who will also require training on the new gamma spot scanner. No further information was provided regarding a reclamation plan. Pam conveyed that the goal is to provide a reclamation plan to LQD including sample results, proposed depths of soil removal and replacement as well as a schedule for the activity.

Deep Disposal Well Status

Morton workover is completed
Vollman workover in progress –may need recompletion or offset
SRHUP #6 – conducting flow tests
SRHUP#9 - drilling completed
SRHUP#10 – site excavation ongoing in preparation of well pad

FIELD INSPECTION

Mine Unit 15 & 15A

The inspector observed the mechanical integrity test (MIT) at injection well 15I-763 in MU-15A along with two NRC inspectors **(Figure 1)**. The test resulted in a confirmed positive integrity of the well. It was noted that topsoil was stripped in stockpiled for the wells in the area A down-slope toe-ditch should be constructed around the pile **(Figure 2)**..

In effort to observe well completions, several wells in MU-15A were checked for the status of the completion. At the time of the inspection, the wells were in the under-reaming stage of completion and preparing to install the screen interval.

The new well caps were noted on two of the new wells. The red caps are seated into the top of the casing leaving only a narrow lip around the top that can be bumped or dislodged by wildlife making it more resistant to removal.

Mine Unit 9

A new well cover design is being utilized that is supported by BLM as better suited to the terrain and aesthetically less noticeable than the white boxes found in other wellfields. The new design is shaped like a pyramid, tan is color and made of a synthetic material **(Figure 3)** . The covers fit snuggly over the concrete basin surrounding the wellhead. Leak detection was observed in a random well check and found to be functioning **(Figure 4)**.

Development drilling was ongoing in Header House 9-13 area. Topsoil was found to be salvaged and segregated into stockpiles away from the drill sites. Signs were in place on the piles. Toe ditches are not found to protect the loss of soil around the base of the pile. Development drilling was observed on the western edge of the wellfield. New red well caps were observed.

Drilling was occurring outside the monitor well ring. It could not be confirmed whether the drilling was delineation drilling for expansion of the wellfield or exploration drilling by the Cameco Casper Exploration Office for new development. Access to the drill sites was not found due to the heavy snow conditions. The inspector inquired whether the drilling was occurring on Dave Johnston Mine reclamation within the permit overlap area and will require additional investigation.

DDW #6 is located immediately south of Satellite SR-2. It has been drilled and completed with flow testing ongoing **(Figure 5)**.

Wellfield Checks

The inspector toured Wellfields 2, 4, 4A, 9, 15 and 15A to observe wellfield activities. Wellfield operators were present and in the wellfields as confirmed during header house checks of HH2-5 and 9-13. The sign-in check sheets had been updated earlier in the day. Flow was noted on both injection and production circuits in HH2-5 and HH 9-13.

New disturbance was discovered west of MU-4 including several loaders and other construction equipment and multiple pick-up trucks indicating contractor work. A large stockpile was noted from the distance and presumed to be topsoil stripped from the area **(Figure 6)**. It appeared the dozers were excavating from a depression and pushing the material upslope. Upon return to the office to inquire what the disturbance was related to, CR explained it was the development of the Deep Disposal Well Pad #10.

New delineation drilling was occurring in proposed Wellfield 7 and also noted in MU-3 in addition to the drilling activity noted in MU-9 and 15A.

PHOTOS

Figure 1 MIT observed at well 15I-763

Figure 2 Topsoil stockpile with sign

Figure 3 View of new well covers in MU-9

Figure 4 View of inside of well in Figure 3

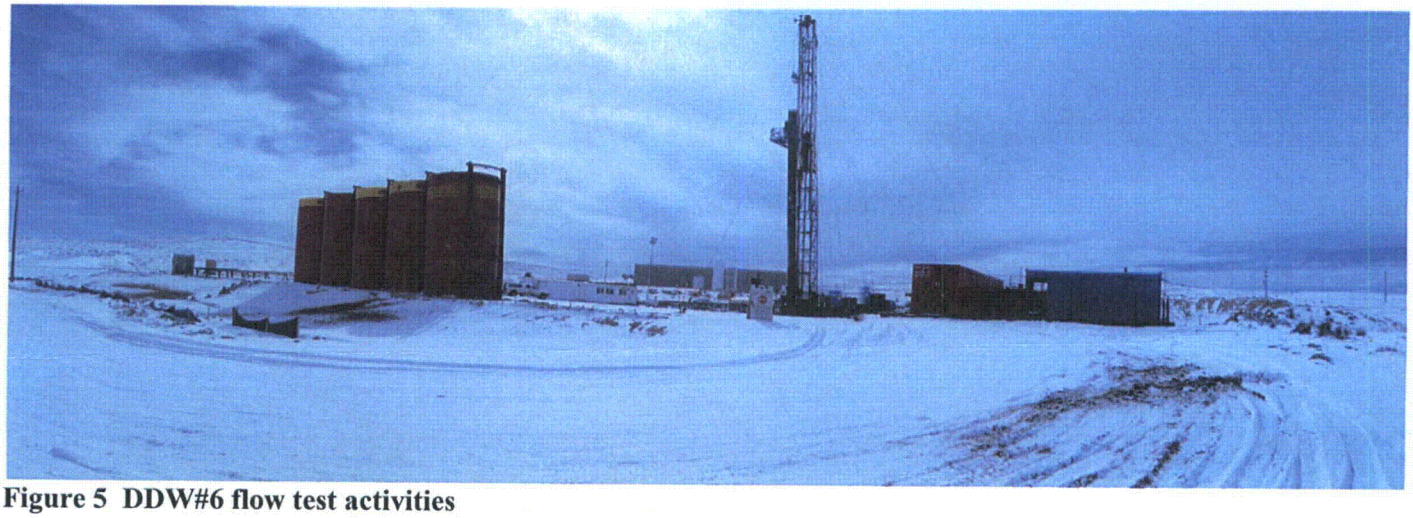

Figure 5 DDW#6 flow test activities

Figure 6 View of new disturbance for DDW#10

COMPLIANCE/ASSESSMENT

1 Cameco was advised to contact Pacific Corp regarding potential disturbance to coal reclamation within the overlap permit area included on the Smith Ranch permit and the Dave Johnston coal permit. The inspector was not able to access the drilling activities outside the monitor well ring for MU9, HH-9-13 to investigate the drilling activities due to heavy snow conditions. **Cameco will need to reclaim all drilling and wellfield related disturbance that overlaps onto coal reclamation to coal standards as specified in the Glenrock Coal Company Permit to Mine No. 291.**

2 Topsoil stockpiles constructed for local disturbances occurring during wellfield development require protection measures according to Noncoal Rule and Regulations Chapter 3, Section 2(c)(i)(B). CR is not providing a quick growing cover of vegetation as the piles are typically reapplied within a year. However, to minimize loss of soil during heavy runoff events and to keep mine traffic from encroaching onto the piles a perimeter toe ditch is required to contain the soil. **Please construct a toe ditch around the topsoil stockpiles during construction of all new topsoil stockpiles.**

3 The LQD inspectors will continue to request wellfield updates including status of all wellfields as well as status of the deep disposal wells and other facilities. It is requested that SHEQ have information available for the updates during unannounced inspections.